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MESH REPAIR VERSUS MAYO REPAIR FOR UMBILICAL HERNIA IN ADULT: A COMPARATIVE STUDY

General Surgery

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ABSTRACT

Introduction: umbilical hernia in adults are largely acquired&more common in female (ratio3:1)&in patients with raised intraabdominal pressure such as obesity,ascietes, pregnancy.

Material And Methods:-In this prospective study two groups made and 20 patients were selected randomly in each group to undergo mesh repair or mayo's repair. Then complications and recurrence rates were compared of the two procedures.

Results:-classical Mayo's repair is associated with more recurrence rates and more complications as compared to tension free mesh repair.

KEYWORDS

umbilical hernia, Mayo's repair,mesh repair.

INTRODUCTION:-

umbilical hernia in adults are largely acquired &are more common in female(ratio3:1) & in patients with raised intraabdominal pressure such as obesity,ascietes, pregnancy,or chronic abdominal distension. It is commoner in those with only a single aponeurotic midline decussation compared with normal decussation of fibres from all three lateral abdominal muscles. Most common presenting complaint is ventral bulge or abdominal discomfort.content is commonly omentum with incarceration and strangulation being less common complication except in those with small neck defect. classical 'vest over paint' repair of mayo's used imbrication of the superior and inferior fascial edges.,however it is rarely performed now a days .Instead <3cm defects are closed by primary repair and >3cm ones by mesh repair ,due to lower recurrence rates.

AIMS AND OBJECTIVES:

To find out the postoperative complications like wound infection, recurrence rates after mayos repair and mesh repair in umbilical hernia in our set of population.

MATERIALS AND METHODS:

A prospective study was conducted in jlnmch,Bhagalpur between july2019-june2020.total 40 patients were enrolled for the study.

Inclusion Criteria:

all adult patients with umbilical hernia.

Exclusion Criteria:

patients with obstructed or strangulated umbilical hernia.

Patients with comorbid conditions like copd or diabetes or other cardiorespiratory illnesses.

Twenty patients were selected randomly for particular procedure.all patients underwent surgical procedures after preoperative preparation.

RESULTS:

Paraumbilical hernia is more common between 4rd and 6th decade of life, more common in females.

Table1

Size of defect(cm)	mesh	Mayo"s
4	10	9
4-6	8	8
>6	2	3

Table:2

	Group A (mesh repair)	Group B (mayo repair)
Age(ranging)	25-45 years	25-40 years
Mean Age	35years	32 years
Female:Male Ratio	3:1	4:1
Duration of drain	48 hours	96hours
Hospital stay	3-4days	5-6days
Recurrence at 6m	1	2
Recurrence at 1 yr	2	5

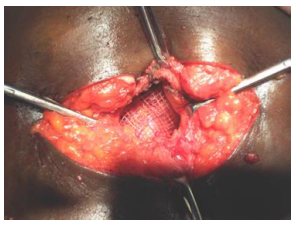

Fig. Mesh Placement

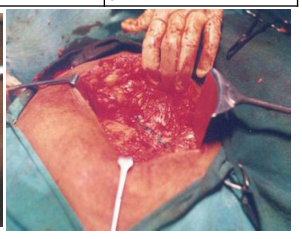

Fig. Mayo Repair Completed

In gp A with the mean age of 35 yrs,&the range of 25-45 yrs.,the patients underwent onlay mesh hernioplasty .Majority of patients(75%) were Females &remaining 25%(5 patients) were males . All patients had drain placement which was removed postoperatively after 48 hrs.the duration of hospital stay was 3-4 day in these patients.At 6 month 1(5%) patient presented with recurrence &1 yrs only 2 patients(10%) reported with recurrence.

In grp B the mean age was 32 yrs & the range was 25-40 yrs.16 out of 20 patients (80%) were females & 4 patient were male, with a female:male ratio is 4:1.Drain had been put for 4 days postoperatively due to significant drain output upto 2 days.hospital stay was 5-6 days for them.At 6 month 2 patients (10%)reprted with recurrence& at 1 yrs 5 patients (25%) reported with recurrence. Postoperative complications were observed in patients of both groups,but were significantly higher in grp B patients.

Table 3:- Post Operative Complications

Complications	group A mesh repair		group B mayos repair	
Seroma	2 cases	10%	3 cases	15%
Haematoma	1 case	5%	2 cases	10%
Wound infection	1 case	5%	3 cases	15%
Recurrence	1 cases	5%	5 cases	25%

DISCUSSION

Para-umbilical hernia is a commonly seen in our society. The treatment of paraumbilical hernia is entirely surgical. The classical Mayo's repair is less costly, easy to perform but unfortunately is associated with a high recurrence rate which is in comparison with our study with a recurrence rate of 24%,In a study by M.kensarah. Kings North et al in UK reported the recurrence rates to be 3.4% for mesh repair and double the recurrence rates for double overlap repair which again stands in comparison with our study. A similar study by Aslani et al in 2010 and by Arroyo et al in 2001 showed few recurrence rates for mesh repair as compared with suture repair which is again in comparison with our study of recurrence rate of 10% for mesh and 25% for mayo's repair after 2 yrs.Celdran observed no recurrence in 25 cases of umbilical hernia by using tension free mesh technique after follow up of 13

month,.In our study only 2 patients(10%) reported with recurrence after a period of 12 months using tension free mesh and5 patients(25%) reported with recurrence using mayos technique.

Limitations of our study:-

Small number of patients Small interval of 12 m for follow up and Loss of contacts with few patients.

CONCLUSION

Though we conclude that onlay mesh repair is associated with low recurrence rates,shorter hospital stay ,early return to normal activity,overall minimum complications for paraumbilical hernia repair as compared with Mayo's overlap technique,but a meshless suture repair should not be totally disqualified because our study is neither free of limitations nor it is a multicentre study.

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